

PRELIMINARY SITE ASSESSMENT DAVENPORT AND SANTA CRUZ BRANCH LINES

Santa Cruz and Monterey Counties, California

Prepared for

Santa Cruz County Regional Transportation Commission 701 Ocean Street, Room 220 Santa Cruz, California 95060-4071

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Geomatrix Consultants



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Santa Cruz and Monterey Counties, California

1.0 INTRODUCTION

This report summarizes a preliminary assessment of environmental conditions of approximately 31.6 miles of Southern Pacific Railroad Company's (SPTCo) right-of-way, including portions of the Davenport and Santa Cruz Branch Lines, collectively referred to as the Santa Cruz Branch Line, or the Site in this report. The Site includes the portion of SPTCo's right-of-way that extends from Davenport (milepost 91.3) to Santa Cruz Junction (milepost 79.3) on the Davenport Branch Line, and from Santa Cruz Junction (milepost 120.4) to Watsonville (Salinas Road, milepost 100.8), California on the Santa Cruz Branch Line (Figure 1). Geomatrix Consultants, Inc. (Geomatrix), performed the preliminary site assessment on behalf of the Santa Cruz County Regional Transportation Commission (SCCRTC). It is our understanding that the SCCRTC plans to acquire the property from SPTCo.

Recommendations for a possible Phase II investigative program also are included in this report. It should be noted that the Phase II recommendations focus on on-site issues. Although potential features of environmental concern to the Site were identified at adjacent or nearby properties, Phase II investigative activities are recommended only for identified on-site features.

2.0 SCOPE OF SERVICES

The primary objective of the Phase I program was to identify features or historical uses or activities that could be associated with environmental impairment of soil and/or groundwater at the Site. To achieve this objective, the Phase I program included: site reconnaissance; review of publicly available and SPTCo historical information; review of publicly maintained and available records pertaining to on-site and nearby environmental investigations; review of chemical usage and the possible presence of underground storage tanks on the Site and at facilities immediately adjacent to the Site; interviews with SPTCo personnel regarding general



railroad operations; and review of regional geology and hydrogeology. The preliminary assessment did not include: (1) a title search or identification of property owners other than SPTCo; (2) collection and analysis of samples from the soil, groundwater, or materials found at the Site; (3) an evaluation of seismic considerations; or (4) an evaluation of asbestos or radon.

The major tasks of the preliminary assessment are discussed below.

2.1 HISTORICAL REVIEW

The historical review for this preliminary site assessment addressed the operation of the Site subsequent to SPTCo's acquisition of the property in mid-1881. Information pertaining to site history primarily was obtained by reviewing SPTCo valuation maps and structure record indices, Sanborn Fire Insurance maps (Sanborn maps), and aerial photographs. The possibility of spills and derailments along the Site was discussed with Mr. Michael Grant of SPTCo's Environmental Affairs Group and research from articles printed in the Santa Cruz Sentinel that dated back to 1975, which were provided to Geomatrix by SCCRTC.

SPTCo valuation maps and structure record indices were reviewed to identify on-site structures that could result in environmental impairment of the Site. Valuation maps for the SPTCo property along the rail lines appear to have been developed initially during the early 1900s, and were revised periodically through the 1970s. According to SPTCo personnel, the maps reportedly show a relatively thorough inventory of on-site structures throughout the period the maps were maintained. The structure record indices available with the maps document most structure installation and retirement dates.

Sanborn maps for various years between 1885 and 1988 were reviewed for the Site. The specific locations and years of Sanborn maps that were reviewed are given within the discussion of each section of rail line.

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According to Mr. Ed Banks of SPTCo's Environmental Affairs Group, the valuation maps and structure record indices initially were developed circa 1915.



Historical aerial photographs for the Site were available from the University of California, Santa Cruz in Santa Cruz, California. Their collection included coverage of sections of the Davenport and Santa Cruz Branch Lines from 1928 to 1989. Coverage of the branch lines varied from year to year as did the scale and clarity of the aerial photographs.

2.2 FIELD RECONNAISSANCE

Geomatrix personnel performed field reconnaissance via walking and drive-by observations of the Site on 23 May 1996. The primary objective of the reconnaissance was to observe general conditions and features at the Site and at immediately adjacent properties that potentially could affect environmental conditions at the Site, and to confirm possible evidence of historical features and activities. Geomatrix personnel focused the field reconnaissance to observe features that potentially could affect soil or groundwater beneath the Site such as:

- aboveground tanks, which may have leaked onto the Site;
- soil staining, suggesting poor handling and/or leakage of hazardous materials;
- poor material handling and debris at facilities abutting the Site;
- railroad structures such as in-ground vaults or sumps;
- monitoring wells on or immediately adjacent to the Site, which suggest that water quality is being monitored and could be impaired; and
- excavations, which may indicate that underground storage tanks and/or contaminated soil have been removed and that groundwater may be affected.

During field reconnaissance, Geomatrix personnel also documented the names and addresses of businesses located immediately adjacent to the Site that appeared to use or handle chemicals; this information was used to ascertain the chemical usage near the Site by reviewing Hazardous Materials Management Plans (HMMPs) on file with local regulatory agencies (Section 2.3).

Walking tours generally were performed in areas where commercial and industrial facilities fronted the Site, and in areas where specific features were known to have existed based on information from the historical review (Section 2.1). It is our experience that the greatest



potential for significant environmental impacts to the property occur in these commercial and industrial areas and where historical features have existed. Geomatrix conducted walking tours along approximately 17 miles of the railroad right-of-way between the mileposts listed below; these mileposts are approximate based on a correlation between street maps and SPTCo valuation maps.

• <u>Davenport Branch Line</u> mileposts 81.8 to 79.3 (west of Shaffer Road to Front Street)

• Santa Cruz Branch Line

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mileposts 120.4* to 112.3 (Front Street to Rio Del Mar Boulevard) mileposts 111.7 to 111.6 (along Sumner Avenue) mileposts 111.1 to 110.9 (along Sumner Avenue near Clubhouse Drive) mileposts 110.6 to 108.8 (Bush Gulch to San Andreas Road) mileposts 108.2 to 107.0 (Sand Dollar Drive to Buena Vista) mileposts 106.2 to 105.9 (Buena Vista Drive Landfill) mileposts 104.4 to 104.2 (Watsonville Slough) mileposts 103.4 to 100.8 (west of Lee Road to Salinas Road)
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* Equal to milepost 79.3 on the Davenport Branch Line; see Figure 1.

Field reconnaissance of the Site in primarily residential, undeveloped or agricultural areas was conducted by driving. Additionally, it should be noted that sections of the railroad right-of-way traverse on city streets through Santa Cruz, and are easily visible when driving. Stops were made during the driving tour, as deemed appropriate, to allow more detailed observations of conditions. General site conditions were documented by Geomatrix personnel with photographs and field notes.

2.3 REVIEW OF AGENCY FILES

The purpose of reviewing agency files was to obtain information about: (1) on-site and nearby off-site features that may have affected soil and/or groundwater conditions at the Site, including information about potential on-site chemical usage and reported spills; (2) the presence of



permitted underground storage tanks (USTs)² at the Site and at properties abutting the Site; and (3) toxic and fuel leak cases within 1/8 mile of the Site.

Information pertaining to nearby chemical usage and off-site USTs was obtained primarily from HMMPs on file with local administering agencies for facilities adjacent to the Site, that, based on their apparent business or our observations during field reconnaissance, use chemicals. As indicated by Mr. Steven Schneider of the County of Santa Cruz Health Services Agency, Environmental Health Service (SCHSA), HMMPs in the county are generally required for all businesses that store or use hazardous materials, regardless of the volume stored or used. HMMPs generally were available from the SCHSA and the Watsonville Fire Department (WFD). A summary of facilities for which HMMPs were requested is presented in Table 1.

Toxic and fuel leak cases near the Site initially were identified through a commercial database service, Environmental Risk Information and Imaging Service (ERIIS) of Herndon, Virginia, which tracks regulated, active environmental sites and can sort the database information by location. The search distance from the right-of-way in the ERIIS database for documented environmental cases followed the recommendations in the ASTM³ standard titled, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," (Designation E 1527-94). A copy of the ERIIS database report is presented in Appendix A. Additional information regarding the presence of nearby documented environmental sites was obtained from lists maintained by the Central Coast Regional Water Quality Control Board (CCRWQCB). Specific information regarding toxic and fuel leak cases was obtained primarily from files maintained by the SCHSA, the County of Monterey Department of Health, Division of Environmental Health (MDH), and the WFD.

Geomatrix requested access to 118 files. Cases that were determined to be greater than 1/8 mile were eliminated from the review process. Duplicate file names and the unavailability of some

It should be noted that some USTs at agricultural properties are exempted from regulations governing USTs and may not be documented in public records.

American Society for Testing and Materials



files at the agencies further reduced the number of cases to review. In total, 76 listed environmental cases were within 1/8 mile of the Site.

A summary of the information we obtained from the agency file review is presented in Table 2. The approximate locations of the environmental cases relative to the Site are shown on the ERIIS maps in Appendix A.

3.0 GENERAL SITE DESCRIPTION

This section describes the Site setting, Site history, and regional geologic and hydrogeologic setting.

3.1 SITE DESCRIPTION AND SETTING

The Site consists of approximately 31.6 miles of SPTCo right-of-way (Figure 1). The branch line designations and milepost ranges of the SPTCo right-of-way comprising the Site are the Davenport Branch Line from Davenport (milepost 91.3) to the Santa Cruz Junction (milepost 79.3), and the Santa Cruz Branch Line from the Santa Cruz Junction (milepost 120.4) to Salinas Road (milepost 100.8).

Maps of the Site were provided to Geomatrix by the SCCRTC and SPTCo. According to Ms. Debbie Hale of the SCCRTC, the Site is approximately 100 feet wide along the route, except as specifically shown on the valuation maps, and does not include abutting station properties or rail spurs.

To facilitate discussion of our findings, the Site is informally subdivided into four sections (Figure 1). These sections were developed considering primary historical and current railroad features such as station sites, city boundaries, and current development along the right-of-way. Section designations for the Phase I assessment are:



Section I Davenport (milepost 91.3) to the approximate western

boundary of the City of Santa Cruz⁴ (milepost 81.8)

Section II Milepost 81.8 (on the Davenport Branch Line) to the eastern

boundary of the City of Santa Cruz⁵ (milepost 119.1 on the

Santa Cruz Branch Line).

Section III Milepost 119.1 through Capitola and Aptos to Leonard's Gulch

(milepost 109.2).

Section IV Milepost 109.2 to Salinas Road (milepost 100.8) which is

approximately 0.4 miles from Watsonville Junction.

3.2 SITE HISTORY

Information contained in this section was obtained primarily from "California Central Coast Railways" by Rick Hamman. According to Hamman, the portion of the Site known as the Santa Cruz Branch Line began operation in May 1876 as a narrow gauge passenger and freight rail line. At this time, the approximately 20-mile line was owned and operated by the Santa Cruz Railroad. The Santa Cruz Branch Line was purchased by SPTCo in June 1881, and was fully converted to a broad gauge railroad by 1883.

The portion of the Site known as the Davenport Branch Line was constructed from Santa Cruz Junction to Davenport Landing by a SPTCo subsidiary company, the Coast Line Railway Company. Freight and passenger operations reportedly began on this line in the spring of 1908. During the late 1800s and early 1900s, freight operations for the railroad included conveying lumber, quarried material, and agricultural products out of the Santa Cruz area. With construction of the Davenport Branch Line, incoming freight included coal and gypsum for delivery to the cement factory. Circa 1910, the maintenance repair operations at the Santa Cruz Junction were largely transferred to Watsonville Junction (then known as Pajaro). Passenger service discontinued in 1938. Currently, three freight trains per week traverse the rail line from Watsonville Junction to Davenport, and back.

The City of Santa Cruz boundary, as shown on the Rand McNally map titled "Santa Cruz Watsonville, California, City Map, 1993."

The boundary is approximately at the eastern shore of the Santa Cruz Yacht Harbor.



3.3 REGIONAL GEOLOGIC SETTING AND GENERAL HYDROGEOLOGY

The site lies in the Coast Range geomorphic province of California. The majority of the site, from north of Davenport to La Selva Beach, is situated on lowlands seaward of the Santa Cruz Mountains. This portion of the site generally follows the coastline of the Pacific Ocean and Monterey Bay. Near La Selva Beach, the corridor turns landward toward Watsonville and generally follows the flood plains of the Watsonville Slough and Pajaro River.

These lowlands along the coastline of the Pacific Ocean and Monterey Bay have been interpreted to be uplifted or emergent marine terraces of Quarternary age (Brabb, 1989). The higher terraces are progressively older and more dissected. These terraces are cut into the Santa Cruz Mountains, which consist of Tertiary-age sedimentary rocks that have been folded and faulted by movements along the San Andreas fault system.

The rocks underlying the site are predominantly of late Cenozoic marine origin with some continental deposits. The portion of the site from north of Davenport to La Selva Beach rests on the lowest emergent terrace, which consists of well-sorted marine sands and gravels that range from 20 to 40 feet thick. Locally, this terrace has been cut by streams; these cuts expose some underlying Tertiary mudstones and siltstones in some locations and in other locations contain more recent alluvial fill deposits consisting of sand, silt, gravel, and clay that are generally less than 100 feet thick. The underlying Tertiary rocks range up to 8900 feet thick and are underlain by granitic basement rock. An inactive fault, the Ben Lomond fault, crosses the site west of Santa Cruz; the location of the fault is generally coincident with the San Lorenzo River.

The portion of the Site from La Selva Beach to Watsonville rests on continental deposits consisting of alluvial (flood plain) sand, silt, clay, and gravel and eolian sands. These deposits locally range from 50 to 200 feet thick.

The regional groundwater flow regime has not been extensively documented. However, the general pattern of regional groundwater flow can be interpreted from the geography and geology. The Santa Cruz Mountains to the east likely act as a flow boundary and as the principal area of groundwater recharge, while the lowlands or terraces, are likely a zone of groundwater



discharge. Water infiltrating the upland areas percolates downward and recharges groundwater in the bedrock fracture system. Groundwater eventually moves toward the ocean, flowing into the terrace and basin fill sediments. From these sediments, groundwater is discharged directly to the ocean with some discharge through evapotranspiration.

4.0 FINDINGS OF PRELIMINARY SITE ASSESSMENT

This section describes our general findings pertaining to possible environmental features at the Site, followed by the findings of the preliminary assessment specific to each of the four sections of the Site. The sections of the Site are described successively eastward from Davenport (Section I) to Watsonville (Section IV). The discussion of each section includes a general description of the site setting, observations made during field reconnaissance, a discussion of our review of historical and regulatory agency files, and a summary of identified features that could environmentally impair the Site. Depth to groundwater and direction of groundwater flow are estimated based on information obtained from regulatory agency files.

Potential environmental features identified at the Site are located according to the corresponding railroad milepost. Milepost locations are approximated to the nearest tenth of a mile.

4.1 GENERAL COMMENTS

The following sections summarize general information available about derailments and spills and other miscellaneous factors that may have environmentally affected the Site.

4.1.1 Derailments and Spills

To obtain information pertaining to train derailments and railroad spills, Geomatrix personnel interviewed Mr. Mike Grant of SPTCo and Mr. Ernie von Ibsch of the Public Utilities Commission, Railroad Operations and Safety Department. In addition, Geomatrix reviewed articles from an approximately 14-year period (1978-1992) that were printed in the Santa Cruz Sentinel.



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Mr. Grant indicated that SPTCo does not maintain a specific file or database of spill events. If a significant spill event occurs involving a chemical release, a file documenting the event and the actions taken would be maintained as an environmental site file. Mr. Grant was unaware of significant spill events on the Site. Mr. von Ibsch indicated that he was unaware of releases of hazardous materials on the Davenport and Santa Cruz Branch Lines as a result of train derailments over the past five years.

Articles in the Santa Cruz Sentinel indicated that SPTCo trains have occasionally derailed on the Site; however, only one derailment was reported to have resulted in chemical spillage. This derailment, on 2 December 1987, spilled 200 to 300 gallons of diesel fuel at Murray Street and Brooke Avenue between Seabright Avenue and East Cliff Drive (approximately milepost 119.5 in Section III; Figure 1). The Santa Cruz Sentinel reported that the SCHSA was monitoring the cleanup of the diesel-affected soil, and that samples would be taken to confirm that the cleanup was completed. The derailment was not listed in the ERIIS report as an active environmental case.

4.1.2 Use of Herbicides

Geomatrix interviewed Mr. Phil Benasso of SPTCo to obtain information regarding the use of herbicides at the Site. Mr. Benasso stated that Roundup[®] is generally used for weed control, and is applied as needed.

4.2 SECTION I: MILEPOST 91.3 TO 81.8 (DAVENPORT)

This section includes the railroad right-of-way from milepost 91.3 to 81.8, and extends through the community of Davenport to the approximate western boundary of the City of Santa Cruz (Figure 1). The Section is bordered primarily by Highway 1 to the north, and the Pacific Ocean and agricultural areas to the south.

Our review of nearby environmental sites did not provide information regarding the general depth to groundwater in this section. Generally, groundwater flow direction has been reported to the southwest.



4.2.1 Historical Review

Geomatrix reviewed aerial photographs dated 1928, 1941, and 1953 for Section I. These photographs show that the area surrounding the Site from Davenport to the City of Santa Cruz is primarily undeveloped and agricultural, except for a cement factory in Davenport (currently the RMC Lonestar cement factory, as discussed in Sections 4.2.2 and 4.2.3). This factory is apparent in each of the photographs. Two aboveground storage tanks (ASTs) located south of the Site (in the presumed downgradient direction) appear in the 1928 photograph. Only one of these ASTs is apparent on the 1941 aerial photograph; however, a third AST is present south of the railroad right-of-way. This newer AST also is present in the 1953 aerial photograph. No significant features of potential environmental concern were identified on the Site from the aerial photographs.

No Sanborn maps were available for most of Section I. This section is shown on SPTCo historical valuation maps V-59/8 through V-59/2 and current valuations map V-89/8 through V-89/2. The valuation maps indicate that this approximately 9.5-mile section was serviced by one station (Davenport Station, milepost 90.7). At this station, there was a loading shed that was retired in 1945 and a passenger and freight depot that was retired in 1959. The SPTCo valuation map that shows these features is included in Appendix B. Chemicals, including pesticides and herbicides, may have been handled at the loading shed and freight house, and potential chemical spillage at these locations may have affected environmental conditions at the Site.

The SPTCo valuation maps show aboveground oil tanks with a pump house approximately 400 feet south (downgradient) of the Site at approximately milepost 91.3. North of the Site at this location is a cement factory (currently the RMC Lonestar cement factory). The cement factory contained a power house, machine shop, engine house, and kilns. A drainage tunnel from the stock house area of the cement plant runs beneath the Site, which may be environmentally affected by discharges at the adjacent cement plant depending on chemical (including fuels) handling practices and potential spillage of chemicals brought into or out of the facility.

On-site features that potentially could affect environmental conditions included a derrick, engine house, and tank at milepost 85.9. SPTCo structure record indices indicate that the facilities at



milepost 85.9 were located on the Site; however, they were not owned by SPTCo. It is not known whether the tank was above- or underground, what the tank contained, or when these structures were installed or removed.

4.2.2 Field Reconnaissance

A walking and drive-by reconnaissance was performed on 23 May 1996 along the Davenport section. The surrounding area is primarily agricultural, and the majority of the farm buildings are located south of the Site.

On-Site Features

No potential environmental features were observed directly on the right-of-way during the site reconnaissance.

Off-Site Features

Adjacent to and north of the Site, Geomatrix observed the RMC Lonestar cement factory (milepost 91.3). No cement dust/powder was observed between the tracks and plant. No potential environmental features were observed adjacent to the Site during the reconnaissance.

4.2.3 Review of Agency Files

Geomatrix identified one facility (RMC Lonestar) adjacent to the Site in Section I that potentially uses or handles chemicals. Records of chemical usage indicate that primarily petroleum-based products are being stored and used at this facility (Table 1).

Eight environmental cases are located within 1/8 mile of the Site in Section I (Table 2). Of these, regulatory agency files were available for five cases and one case was closed. The approximate locations of these cases are shown on the ERIIS maps presented in Appendix A. Three of the cases are fuel leak sites, one of which has a documented release of chemicals to soil. Based on an assumed southwesterly groundwater flow direction, the three fuel leak sites are located upgradient of the Site and potentially could affect groundwater beneath the Site. The two other cases, also located in the presumed upgradient direction from the Site, were historic



landfills (including a historical landfill adjacent to the RMC Lonestar cement factory) and potentially could affect groundwater beneath the site.

4.2.4 Summary

On-site features in Section I that potentially could affect environmental conditions at the Site were identified from the historical review. These features include: (1) potential chemical discharge through a drainage tunnel that runs beneath the Site and originates at the cement factory (approximate milepost 91.3); (2) a loading shed and freight depot where chemicals may have been handled at milepost 90.7; and (3) an engine house and potential UST at milepost 85.9. The approximate locations of these features are shown on Figure 2a. No other potential environmental features were observed in Section I of the Site during field reconnaissance. Nearby environmental cases potentially could affect groundwater beneath the Site in this section.

4.2.5 Recommendations

Based on the findings of the preliminary site assessment for Section I, we recommend that a Phase II investigative program be performed to evaluate whether historical features at the Davenport Station (loading shed and freight depot) and an engine house and potential UST at milepost 85.9 affect environmental conditions on the Site. Our specific recommendations are presented below.

<u>Davenport Station (milepost 90.7)</u>: Near the former loading shed and freight depot, we recommend that the Phase II investigative program consist of collecting soil samples from borings drilled to a maximum depth of approximately 10 feet below ground surface (bgs). Soil samples from these borings should be analyzed for volatile and extractable petroleum hydrocarbons, semi-volatile organic compounds, and selected metals. Additionally, we recommend that the shallow samples collected at this location be analyzed for organochlorine pesticides and the deeper samples from each boring also be analyzed for volatile organic compounds.

<u>Engine House and Potential UST at Milepost 85.9</u>: In the vicinity of the potential UST, we recommend that a geophysical survey be performed to evaluate the existence of the UST. If the



UST is present at the Site, we recommend that the current property owner, SPTCo, obtain regulatory closure of the UST. If the presence of the UST cannot be confirmed, we recommend that soil samples be collected from a boring located at the presumed location of the UST for analysis of volatile and extractable petroleum hydrocarbons, volatile and semi-volatile organic compounds, and selected metals. Finally, we recommend that soil samples be collected from a boring drilled to a maximum depth of about 10 feet bgs at the former engine house. Soil samples from these borings should be analyzed for volatile and extractable petroleum hydrocarbons, semi-volatile organic compounds, and selected metals. The deeper samples from each boring also should be analyzed for volatile organic compounds.

4.3 SECTION II: MILEPOST 81.8 TO 119.1 (SANTA CRUZ)

This section includes the railroad right-of-way from milepost 81.8 to 79.3 on the Davenport Branch Line and milepost 120.4 to 119.1 on the Santa Cruz Branch Line, extending from approximately the western to eastern boundaries of the City of Santa Cruz (Figure 1). The westernmost portion of this approximately 3.8-mile section is primarily light industrial; residential areas are present east of Natural Bridges State Park. The rail line fronts commercial and retail areas in the center portion of the City of Santa Cruz and transitions to a primarily residential area east of the Boardwalk area.

The depth to groundwater in this section ranges between approximately 2 to 20 feet below ground surface (bgs), as documented at nearby environmental sites. The groundwater flow direction has been documented generally to the south and southwest.

4.3.1 Historical Review

Geomatrix reviewed aerial photographs for Section II dated 1928, 1940, 1941, 1953, 1961, 1965, 1969, 1982, and 1989. The 1928 photograph shows the area from approximately the Santa Cruz Harbor to the Boardwalk. This area appears to be primarily residential. In 1941, warehouses are present in the western portion of Santa Cruz and primarily residential development north of the Boardwalk. Subsequent photographs show that the western portion of Santa Cruz continued to develop as an industrial area up to 1989, where numerous warehouses with spurs leading from the railroad to the warehouses appear. At Almar Avenue, the surrounding area transitions from



industrial to residential. The residential area appears in all photographs reviewed and stretches from Almar Avenue to Santa Cruz Junction. The wastewater treatment plant located adjacent to the Site at the southern tip of Neary's Lagoon is present in the 1982 aerial photograph and through the 1989 photographs. No significant features of environmental concern were identified from the aerial photographs.

Section II is shown on SPTCo historical valuation maps V59/2, V59/1, and V42/1, and current valuation maps V89/1, V89/2, and V72/1 through milepost 119.1. Sanborn maps were available for Section II of the Site for the years 1886, 1888, 1892, 1905, 1928, 1950, 1957, 1966, and 1988. The Sanborn maps show that general development in the late 1800s and early 1900s, the area near the Santa Cruz junction primarily contained resort hotels and some residences; the area east of the San Lorenzo River was primarily residential and undeveloped. In the mid-1920s, more residences were constructed in the area near the Boardwalk, and a power plant was present just north of the Boardwalk. The Sanborn maps show continued commercial and residential development over Section II with time. No Sanborn maps were available for the more industrial area west of the Santa Cruz junction.

SPTCo valuation maps indicate that this approximately 3.8-mile section was serviced by three primary stations: the Santa Cruz Station (milepost 120.4 at the Santa Cruz Junction), Casino Station (milepost 120.1), and Seabright Station (milepost 119.4). These stations and other historical environmental features at and along the Site are described below. Facilities associated with the Santa Cruz Station were located primarily off site. However, the valuation maps show several structures associated with the Santa Cruz Station that could potentially affect environmental conditions located on the Site (Figure 3). A tool house (constructed in 1896, retirement date unknown), roadmasters' car house (constructed in 1906, retired in 1930), and a scrap bin were on the Site. The Sanborn map dated 1892 shows a portion of the freight house also was located on the Site. The freight house does not appear on SPTCo valuation maps or the structure record index. Sanborn maps dated 1928, 1950, and 1988 show the structure identified as a tool house on the SPTCo valuation map.



No specific structures are shown on the SPTCo valuation maps at the Casino Station and no structure record index was available for this location. The Sanborn map dated 1905 shows an inground concrete oil reservoir near the Casino Station at approximately milepost 120.0 (Appendix B). This oil reservoir was located about 20 feet south of the centerline of the railroad; depending on the width of the right-of-way at this location, this feature may be on site.

A freight house that was constructed in 1915 and retired in 1945 is shown on valuation maps to be partially on the Site at the Seabright Station. Potential chemical handling and spillage at the freight house may have affected environmental conditions at the Site. A fire house (retired in 1939) that was owned by the City of Santa Cruz operated at the Seabright Station; however, it appeared to be adjacent to and not included within the Site boundaries. This fire house, as well as the freight house, also appears on the 1928 Sanborn map (see Appendix B).

Other features that appear to be on Site, shown on the historical Sanborn maps are a railroad stop at milepost 80.1 and a structure labeled as a Southern Pacific monitoring room at milepost 80.5.

Several historical features adjacent to the Site that could affect environmental conditions also are shown on the valuation maps. An oil sump/trap, pump house and oil sumps, water house, sand house, roundhouse, and turntable were located immediately adjacent to the Site at the Santa Cruz Station (Figure 2). Coast Counties Light and Power Company was located adjacent to and north of the Site at milepost 120.1. At milepost 120.2, an area labeled as the Pacific Shell station was shown adjacent to the Site.

Potential environmental features located adjacent to the Site noted on the Sanborn maps include oil tanks associated with the Santa Cruz Boardwalk and gas and oil facilities primarily in the vicinity of the Boardwalk. Coast Counties Light and Power Company with a 65,000-gallon fuel oil tank is shown on the Sanborn maps. The 1950 Sanborn map showing the tank is included in Appendix B. Additionally, a facility labeled gas and oil is shown on the 1966 Sanborn map at the location of the former Seabright Station depot.



4.3.2 Field Reconnaissance

A walking and drive-by reconnaissance of Section II was performed on 23 May 1996. The area surrounding the Site includes industrial, commercial, or residential properties along the length of Section II.

On-Site Features

Potential on-site environmental features include a monitoring well at milepost 81.2 and atypical soil staining on the tracks and ballast at milepost 79.5. Ownership of the monitoring well was not apparent from the regulatory review (Section 4.3.3). A pumping station is located on the property near Neary's Lagoon (milepost 79.4); however, no staining or evidence of material storage was observed at the pumping station. No tanks or associated appurtenances were observed along the length of the Site in Section II during the reconnaissance.

Off-Site

Miscellaneous debris were observed at several locations adjacent to the Site: (1) several drums of unknown contents south of the Site, abandoned vehicles and debris adjacent to and north of the Site at milepost 81.1; (2) equipment and debris at mileposts 80.8 and 80.7; and (3) drums of unknown contents at milepost 80.6. Other features of potential environmental concern adjacent to the Site include a spur track that contained tank cars at the time of the reconnaissance at the Wrigley plant (milepost 81.3), aboveground storage tanks of unknown contents at the Wrigley plant, the waste water treatment plant at milepost 80.5, and several auto and boat repair shops at approximately milepost 119.4.

4.3.3 Review of Agency Files

Geomatrix identified 32 facilities adjacent to the Site in Section II that potentially use or handle chemicals. Records of chemical usage indicate that primarily petroleum-based products are being used at these facilities (Table 1). Notable exceptions to this include documentation of solvent, acid, and/or caustic at Radiac Abrasives, Inc., Lipton, Silicon Systems, and Bonny Doon Vineyard.



Sixteen environmental cases located within 1/8 mile of the Site in Section II (Table 2) were documented by ERIIS. Of these, regulatory agency files were available for seven cases and two cases were closed. The approximate locations of these cases are shown on the ERIIS maps presented in Appendix A. Four of the cases are fuel leak sites (ERIIS I.D. Nos. 6169, 1468, 6819, and 272), all of which have documented releases of chemicals to soil and/or groundwater. Based on an assumed groundwater flow direction to the south-southwest, four of the fuel leak cases are located north and upgradient of the Site (see Table 2) and potentially could affect groundwater beneath the site. The two other environmental cases for which files were available also are located in the presumed upgradient direction from the site, and potentially could affect groundwater beneath the site. One case, at the Water Pollution Control Facility (ERIIS I.D. No. 2020), was an area of historic filling, possibly consisting of old construction debris. Petroleum hydrocarbons and lead were detected in soil at this site. The second case (ERIIS I.D. No. 3994 for Mission Industrial Lands at approximately milepost 81.0) reportedly disposed of chemicals and materials along a property boundary adjacent to the Site. At this location, it is possible that soil and groundwater at the Site potentially has been affected.

4.3.4 Summary

The historical review showed several features of potential environmental concern to Section II of the Site. These features include a tool house, roadmasters' car house, scrap bin, and freight house at the Santa Cruz Station (milepost 120.4), an in-ground oil reservoir near the Casino Station (approximately milepost 120.0), and a freight house at the Seabright Station (milepost 119.4), as shown on Figure 2b. Off-site historical features such as the maintenance facilities at the Santa Cruz Station and gas and oil facilities in the Boardwalk area also could affect groundwater conditions beneath the Site.

A well observed on the Site at milepost 81.2 suggests that groundwater is being monitored in this area and may be impacted. Atypical soil staining between the railroad tracks and surrounding ballast at milepost 79.5 suggest that a petroleum-based spill occurred in this area. Miscellaneous dumping of debris in this section, and reported dumping at the Site near Mission Industrial Lands (ERIIS I.D. No. 3994 at approximate milepost 81.0), also could affect environmental conditions



at the Site. Finally, other nearby environmental cases could affect groundwater beneath the Site in this section.

4.3.5 Recommendations

Based on the findings of the preliminary site assessment for Section II, we recommend that a Phase II investigative program be performed to evaluate whether historical and current features affect the Site. Specifically, we recommend the following:

Santa Cruz Station (Milepost 120.4): We recommend that the Phase II investigative program consist of collecting soil samples from borings drilled to a maximum depth of approximately 10 feet bgs in the vicinity of the former tool house and roadmasters' car house, and on the Site near the former freight house. Soil samples from these borings should be analyzed for volatile and extractable petroleum hydrocarbons, semi-volatile organic compounds, and selected metals. The deeper samples from each boring also should be analyzed for volatile organic compounds.

<u>Casino Station (Milepost 120.1)</u>: We recommend that a geophysical survey be performed to investigate the potential presence of the historical in-ground oil reservoir. If the oil reservoir is present, we recommend that the current property owner obtain regulatory closure of the oil reservoir. If the presence of the oil reservoir cannot be confirmed, we recommend that soil samples be collected from a boring located at the presumed location of the oil reservoir. These samples should be analyzed for volatile and extractable petroleum hydrocarbons, volatile and semi-volatile organic compounds, and selected metals.

<u>Seabright Station (Milepost 119.4)</u>: We recommend that the Phase II investigative program consist of collecting soil samples from borings drilled to a maximum depth of approximately 10 feet bgs in the vicinity of the former freight house. Soil samples from these borings should be analyzed for volatile and extractable petroleum hydrocarbons, semi-volatile organic compounds, and selected metals. The deeper samples from each boring also should be analyzed for volatile organic compounds.

Monitoring Well at Milepost 81.2: The ownership and purpose of the monitoring well at approximate milepost 81.2 was not identified during the Phase I assessment; therefore, assuming



that the SCHSA cannot locate records regarding this well, we recommend that the well be sampled to evaluate groundwater quality beneath the Site at this location. Groundwater samples collected from the well should be analyzed for volatile and extractable petroleum hydrocarbons and volatile organic compounds.

Atypical Soil Staining at Milepost 79.5: We recommend that the Phase II investigative program at this location consist of collecting shallow soil samples (to a maximum depth of approximately 3 feet bgs); samples collected in this area should be analyzed for extractable petroleum hydrocarbons and semi-volatile organic compounds, and selected metals. The deeper samples also should be analyzed for volatile organic compounds.

Miscellaneous Dumping near Mission Industrial Lands (approximate Milepost 81.0): We recommend that the Phase II investigative program at this location consist of collecting shallow soil samples (to a maximum depth of approximately 3 feet bgs); samples collected in this area should be analyzed for extractable petroleum hydrocarbons and semi-volatile organic compounds, and selected metals. The deeper samples also should be analyzed for volatile organic compounds.

4.4 SECTION III: MILEPOST 119.2 TO 109.2 (CAPITOLA)

This section includes the railroad right-of-way from milepost 119.1 to 109.2, extending through the communities of Capitola and Aptos to Leonard's Gulch (Figure 1). The rail line in this section primarily fronts residential areas with some commercial and retail areas along the route.

The depth to groundwater ranges between 17 and 22 feet bgs, as documented at one nearby environmental site. The groundwater flow direction reportedly is to the southwest.

4.4.1 Historical Review

Geomatrix reviewed aerial photographs dated 1928, 1953, 1956, 1961, 1963, 1965, 1967, 1969, 1982, and 1989 for Section III. In 1928, the area from approximately Capitola to La Selva Beach was primarily agricultural. In the early 1950s, residential and some commercial development was apparent in the Capitola and Aptos areas. Commercial development in the



Aptos area, as noted from the 1961 aerial photograph, appeared to be present primarily in the vicinity of the Aptos Station. The 1965 aerial photograph showed an apparent industrial area immediately east of the Santa Cruz Yacht Harbor, abutting the Site to the north. By 1989, significant residential development existed south of the Site from eastern Capitola to Rio Del Mar. No significant features of potential environmental concern were identified on the Site from the aerial photographs.

Section III is shown on SPTCo historical valuation maps V42/1 to V42/4 and current valuation maps V72/1 to V72/4. Sanborn maps were available for the years 1892, 1989, 1908, 1926, 1927, 1928, 1929, 1933, 1950, 1957, 1966, and 1971. The 1928 Sanborn map shows that the general development in the westernmost area of this section, which is near the Santa Cruz Yacht Harbor and locally referred to as the Twin Lakes area, is primarily residential and undeveloped. The 1950 and later Sanborn maps show that the area remains primarily residential, but is more densely developed. The Capitola and Aptos areas in the vicinity of the Site also appear primarily residential and undeveloped, with some commercial development in the late 1800s and early 1900s. No Sanborn maps for these two areas were available beyond 1933.

SPTCo valuation maps indicate that the primary stations in this approximately 9.9-mile section were the Capitola and Aptos stations at milepost 115.9 and 112.8, respectively. The valuation maps show that the Capitola Station was serviced by a depot and a freight house; however, these features were adjacent to, but not on, the Site. Similarly, none of the structures located at the Aptos Station existed on the Site. West of the Capitola Station, at approximate milepost 116.6, a freight house was present on the Site; the retirement date of the freight house was not shown on SPTCo's structure record indices. Potential chemical handling and spillage at the freight house may have affected environmental conditions at the Site.

The 1950 and 1957 Sanborn maps show a lumber yard and paint shop partially on the southern side of the Site at approximate milepost 118.9; a SPTCo station building also is shown at this location. A boat repair facility was shown in this same location on the 1966 and 1971 Sanborn maps. Also in this area are warehouses shown on Sanborn maps dating 1928 through 1971. The 1928, 1950, and 1966 Sanborn maps showing these features are included in Appendix B.



4.4.2 Field Reconnaissance

A walking and drive-by reconnaissance was performed on 23 May 1996. The Site is surrounded primarily by residential and commercial properties, except for some light industrial use primarily in the western portion of the Site near the Santa Cruz Yacht Harbor. Agricultural areas border the Site along the eastern portion of Section III toward La Selva Beach.

On-Site Features

No potential environmental features were observed on the Site during the reconnaissance.

Off-Site Features

Off-site ASTs (contents unknown) were observed at the PG&E Service Center, which is north of the Site, at milepost 118.8, auto service and repair businesses at milepost 118.1, located both north and south of the Site, and Ledyard Corporation Distribution Facility at approximate milepost 118.1, also located north of the Site.

4.4.3 Review of Agency Files

Geomatrix identified 17 facilities adjacent to the Site in Section III that potentially use or handle chemicals. Records of chemical usage indicate that primarily petroleum-based products are being used at these facilities (Table 1). Notable exceptions to this include documentation of solvent, waste PCB liquids, acids, and/or caustic at PG&E Santa Cruz Service Center and Ledyard Company.

Seventeen environmental cases are located within 1/8 mile of the Site in Section III (Table 2). Of these, regulatory agency files were available for three cases and five cases were closed. New Brighton State Beach (ERIIS I.D. No. 3565) is located downgradient of the Site, based on a presumed groundwater flow direction to the southwest. However, the Ledyard Corporation Distribution Facility (ERIIS I.D. No. 1312) and El Dorado Meat Company (ERIIS I.D. No. 6989), a fuel leak case which has documented releases of chemicals to soil and groundwater, are north and upgradient of the Site. Environmental conditions at these facilities may affect groundwater beneath the site.



4.4.4 Summary

The historical review showed that a freight house was present on the Site at milepost 116.6. A car repair facility, paint shop, and boat repair facility also historically encroached the Site in this section at approximately milepost 118.9. The location of these facilities are shown on Figure 2c. No specific features that suggest potential environmental impacts were observed during reconnaissance of this section; however, nearby environmental cases may affect groundwater beneath the Site

4.4.5 Recommendations

Based on the findings of the preliminary site assessment for Section III, we recommend that a Phase II investigative program be performed to evaluate whether the former freight house at milepost 116.6 and the lumber yard, paint shop, and boat repair facility at approximately milepost 118.9 impacted environmental conditions at the Site. At each of these locations, we recommend that the Phase II investigative program consist of collecting soil samples from borings drilled to a maximum depth of approximately 10 feet bgs in the vicinity of the former freight house and at the facilities identified at milepost 118.9. Soil samples from these borings should be analyzed for volatile and extractable petroleum hydrocarbons, semi-volatile organic compounds, and selected metals. The deeper samples from each boring also should be analyzed for volatile organic compounds.

4.5 SECTION IV: MILEPOST 109.2 TO 100.8 (WATSONVILLE)

Section IV includes the railroad right-of-way from milepost 109.2 to 100.8 extending from Leonard's Gulch to Salinas Road, Watsonville (Figure 1). This approximately 8.4-mile section is surrounded primarily by agricultural areas from the western boundary of Section IV to the Highway 1 crossing in Watsonville. The area transitions into primarily industrial properties with mixed residential east of the Pajaro River.

The depth to groundwater in this area ranges between 2 and 6 feet bgs, as documented at nearby environmental sites. The reported groundwater flow direction in this section is primarily south to west.



4.5.1 Historical Review

Geomatrix reviewed aerial photographs for Section IV dated 1928, 1953, 1954, 1961, and 1969. From 1928 to 1969, the primary land use from Leonard's Gulch to Watsonville in the vicinity of the Site was agricultural. A 1928 aerial photograph shows warehouses adjacent to the rail line in Watsonville. Aerial photographs from 1953 through 1969 show that the Watsonville area is primarily industrial with numerous warehouses abutting the Site.

Section IV is shown on SPTCo valuation maps V72/4 to V72/6. Sanborn maps were available for primarily the Watsonville area of Section IV for the years 1888, 1892, 1902, 1908, 1920, 1940, 1950, 1956, and 1962. The Sanborn maps show that general development in the late 1800s and early 1900s in the area near the Watsonville Station was primarily light industrial, including lumber distribution facilities and grain warehouses. The area south of the Watsonville Station along Walker Street was residential, and then undeveloped further south. Agricultural distribution facilities appear in the 1902 map south of the Pajaro River, near the Watsonville junction. Additional packing facilities and warehouses appear along Walker Street in the 1908 map. In the 1920s, these areas appear relatively unchanged with the exception of some additional development related to agriculture. The Sanborn maps show additional agricultural and residential development over time through 1962.

SPTCo valuation maps indicate that this approximately 8.4-mile section was serviced by one station (Watsonville) at milepost 102.0. Facilities associated with the Watsonville Station were primarily located off site. Several off-site features of potential environmental concern that are associated with the Station are shown adjacent to the Site on the valuation and Sanborn maps. The valuation map shows a tool house (constructed in 1906, retirement date unknown) with an associated 140-gallon gasoline tank (constructed in 1920, retirement date unknown) at milepost 102.1. An in-ground concrete-covered oil tank is shown immediately adjacent to the Site at milepost 101.9 on the 1920 Sanborn map. In addition, a concrete fuel oil tank located at milepost 101.5 appears on the Sanborn maps from the 1940s to the 1960s (see Appendix B).

Utility companies, located at Front and Walker Streets (milepost 101.4) are shown on the valuation maps. The Sanborn maps also show several utility companies at this location: Big



Creek Power Company (1902, 1908), PG&E natural gas receiving station (1956, 1962), and Coast Counties Gas and Electric (1920, 1940, and 1950). An in-ground oil tank associated with Coast Counties is shown to be about 30 feet east of the main rail line in the 1920 map, but is not shown on subsequent Sanborn maps. Another in-ground oil tank is present about 45 feet from the main line at the Coast Counties facility that is west of the Site. This tank is shown on the Sanborn maps beginning in 1940 and through 1962 (the Coast Counties facility is labeled as a Pacific Gas & Electric Company facility in the later Sanborn maps). Depending on the width of the right-of-way at this location, these features may be on the Site. Sanborn maps showing the in-ground oil tanks are included in Appendix B. Additional adjacent or nearby features shown on historical records include: (1) acid towers and chemical tanks (1908) at California Spray Chemical (milepost 101.6); (2) a freight house (1892 to 1908), a roundhouse, and turntable (1908) at Pajaro Valley Consolidated Railroads (milepost 102.1); (3) in-ground oil tanks (1920) at milepost 102.1; (4) oil tank and mixing tanks (1920) at Ortho Cal Spray Company (milepost 101.6); and (5) an oil and gas station (1940 to 1962) at milepost 101.9.

Off-site features shown on the valuation maps but not on the Sanborn maps include a shelter shed at the Ellicott depot (milepost 102.4) and small bulk oil plants (Union Oil, Standard Oil, California Petroleum) at milepost 103.1. These oil facilities are currently operating under different owners (see Sections 4.5.2 and 4.5.3).

4.5.2 Field Reconnaissance

A walking and drive-by reconnaissance was performed on 23 May 1996. The area surrounding the Site includes primarily agricultural areas with industrial and residential areas at the eastern end of the section in Watsonville.

On-Site Features

Potential on-site environmental features include significant staining of what appears to be petroleum-based material at milepost 102.0, small areas of staining and a depression at milepost 103.2, and miscellaneous debris, including pallets, at mileposts 102.0 and 102.1. Two adjacent businesses were observed to encroach on the Site. Del Mar Food Products, at milepost 103.3, has material such as pallets and plastic containers stored on the Site. Granite Rock, at milepost 102.2, has a storage facility partially constructed on the Site. In addition, staining that appears to



be the result of discharges of materials from Granite Rock onto the Site were observed. No tanks or associated appurtenances were observed along the length of the Site in Section IV during the Site reconnaissance.

Off-Site Features

Features of potential environmental concern observed adjacent to the Site include drums and an aboveground tank or compressor at Del Mar Foods (milepost 103.3), a monitoring well at milepost 103.2, drum storage (contents unknown) at Coast Counties Canning (milepost 102.8), and truck storage at Waste Management of Santa Cruz (milepost 103.0). Ownership of the monitoring well was not apparent from the regulatory review (Section 4.5.3). Facilities were observed adjacent to or near the Site that could potentially use or store chemicals or materials of environmental concern (see Section 4.5.3). Evidence of subsurface piping (likely vent pipes) was observed at the Chevron Oil Products bulk facility (milepost 101.0). Additional fueling facilities, warehouses, and miscellaneous industry abut the Site between mileposts 102.0 and 103.0. A drainage ditch was observed along the southern portion of the Site between mileposts 102.4 and 102.3. Evidence of runoff from a facility adjacent to the Site, Drisco Pipe, into the ditch at approximately milepost 102.4 along the right-of-way was observed.

4.5.3 Review of Agency Files

Geomatrix identified 37 facilities adjacent to the Site in Section III that potentially use or handle chemicals. Records of chemical usage indicate that primarily petroleum-based products are being used at these facilities (Table1). Notable exceptions to this include documentation of solvents, pesticides, PCBs, acids, and/or caustic at Buena Vista Landfill, PG&E Service Center Watsonville, American Foods/Indian Summer, and Restar Farming.

Within Section IV are 33 documented environmental cases within 1/8 mile of the Site. Of these, regulatory agency files were available for 21 cases; and one case was closed. As indicated on Table 2, these sites are located within the city limits of Watsonville. The approximate locations of these cases are shown on the ERIIS maps presented in Appendix A. Based on a presumed groundwater flow direction to the south and southwest, six of the listed environmental cases (ERIIS I.D. Nos. 1481, 9080, 3924, 8221, 3863, and 3874) are downgradient of the Site and considered unlikely to affected groundwater quality beneath the Site. Chemical releases to



groundwater are documented for eight of the upgradient environmental cases. These releases include primarily petroleum hydrocarbons and related constituents (benzene, toluene, ethylbenzene, and xylenes [BTEX] and methyl-tert butyl ether [MTBE]); other reported constituents in groundwater include pesticides and polychlorinated biphenyls (ERIIS I.D. Nos. 2187 and 6461).

4.5.4 Summary

The historical review showed features of potential environmental concern to Section IV of the Site. These features are two in-ground oil tanks that are potentially on the Site at milepost 101.4 and numerous nearby off-site features, including a tool house and gasoline tank at the Watsonville Station, oil tanks, utility company facilities, and chemical tanks. Features of potential environmental concern also were observed on site during reconnaissance, including staining (mileposts 102.0 and 103.2), a discharge onto the Site of unknown composition from Granite Rock (milepost 102.2), and evidence of runoff from Drisco Pipe onto the Site (approximate milepost 102.4). The locations of these features are shown on Figure 2d. Finally, nearby environmental cases could affect the Site.

4.5.5 Recommendations

Based on the findings of the preliminary site assessment for Section IV, we recommend that a Phase II investigative program be performed to evaluate whether historical and current features affect the Site. Specifically, we recommend the following:

<u>In-ground Oil Tanks at Milepost 101.4</u>: We recommend that a geophysical survey be performed to investigate the potential presence of the historical in-ground oil tanks to the east and west of the main line. If the oil tanks are present, we recommend that the current property owner, SPTCo, obtain regulatory closure of the oil tanks. If the presence of the oil tanks cannot be confirmed, we recommend that soil samples be collected from a boring located at the presumed locations of each of the oil tanks. These samples should be analyzed for volatile and extractable petroleum hydrocarbons, volatile and semi-volatile organic compounds, and selected metals.



Surface Staining at Mileposts 102.0, 102.2 (adjacent to Granite Rock), 102.4 (discharge from Drisco Pipe), and 103.2: We recommend that the Phase II investigative program at these locations consist of collecting shallow soil samples (to a maximum depth of approximately 3 feet bgs); samples collected in each of these areas should be analyzed for extractable petroleum hydrocarbons and semi-volatile organic compounds, and selected metals. The deeper samples also should be analyzed for volatile organic compounds.

5.0 LIMITATIONS

This assessment did not evaluate asbestos, radon, or seismic risk at the Site. The observations and conclusions presented in this report are based on the scope of work performed and information obtained through the work described above. The scope of work did not include sample collection and analysis for hazardous constituents. Opinions presented herein apply to conditions observed or from data obtained at the time of our assessment, and cannot apply to site conditions or changes of which we are not aware or which we have not had the opportunity to evaluate.



6.0 REFERENCES

Brabb, E.E., 1989, Geologic Map of Santa Cruz County, California, Division of Mines and Geology, Miscellaneous Investigations Series, Map 1-1905, Scale 1:62500.

Hamman, Rick, 1980, California Central Coast Railways, 9th Ed., Pruett Publishing Company.



TABLE 1

SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 1 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
I	RMC Lonestar	700 Highway 1 Davenport	SCHSA	diesel motor oil transmission fluid	(1) 7300-gallon diesel AST (4) 10,000-gallon diesel ASTs (1) 40,000-gallon diesel AST (1) 10,000-gallon diesel AST (1) 2,350,000-gallon #6 fuel oil AST (1) #6 fuel oil tank truck (2) 5000-gallon gasoline USTs (closed) (1) 10,000-gallon diesel UST (closed) (1) 9500-gallon diesel UST (closed)
II	Radiac Abrasives, Inc.	815 Almar Avenue Santa Cruz	SCHSA	petroleum-based product methanol solvents acids Freon	
	Fmali, Inc.	831 Almar Avenue Santa Cruz	SCHSA	acids sodium hydroxide chlorinated solvents acetone toluene chloroform heptane	
	Dave's Outboard	105 Bronson Street Santa Cruz	SCHSA	parts cleaner petroleum-based product	Parts washer serviced by Safety Kleen.
	Gary's Plastic Place	105 Bronson Street Santa Cruz	SCHSA	methylene chloride	
	Lavar's Auto	105 Bronson street Santa Cruz	SCHSA	used oil paint supplies	Waste solvent handled by Safety Kleen.



TABLE 1

SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 2 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
II	City of Santa Cruz Water Pollution Control Facility	110 California Street Santa Cruz	SCHSA	petroleum-based products Freon isopropyl alcohol chlorinated solvents	 (1) 2500-gallon diesel UST (1) 550-gallon waste UST (1) 550-gallon lube UST 1 December 1993: Release of polymer - 50 gallons to groundwater. 2 January 1996: Release of 2500 gallons of sodium hypochloride (broken piping) underground.
	Lipton	2200 Delaware Avenue Santa Cruz	SCHSA	caustics acids toluene isopropyl alcohol chlorinated solvents ketone paraffin methyl chloroform xylene methyl ethyl ketone diesel petroleum-based products	(2) 10,000-gallon diesel UST; closed May 1988 (1) 1000-gallon diesel AST fuel
	Silicon Systems, Inc.	2300 Delaware Avenue Santa Cruz	SCHSA	arsenic acetone ethanol acids diesel fuel tetrafluoromethane chlorinated solvents	Chip production facility.



TABLE 1

SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 3 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
II	E.V. Moceo	1206 Fair Avenue Santa Cruz	SCHSA	petroleum-based products acids sodium hypochlorite anhydrous ammonia	Produce packer/shipper. Three USTs removed on 22 March 1989. Free product observed on water table surface in two of three former excavations.
	Dietrich Iron Works	140 Ingalls Street Santa Cruz	SCHSA		No file.
	Facility Name Not Available	322 Ingalls Street Santa Cruz	SCHSA		No file.
	Bonny Doon Vineyard	402 Ingalls Street Santa Cruz	SCHSA	acids potassium metabisulfite soda ash acids sulfur dioxide quaternary ammonium	
	Full Metal Jacket Fiberglass	402 Ingalls Street #23B Santa Cruz	SCHSA	fiberglass methyl ethyl ketone peroxide acetone resin	Surfboard manufacturer.
	TNT Transmissions	402 Ingalls Street #19 Santa Cruz	SCHSA	solvent petroleum-based products	
	Ward Coffey Shapes	402 Ingalls Street #13 Santa Cruz	SCHSA		No file.
	Roberts Auto Repair	429G Ingalls Street Santa Cruz	SCHSA	petroleum-based products	
	Facility Name Not Available	125 McPherson Street Santa Cruz	SCHSA		No file.
	Gregory Kerrick Comprehensive	115 McPherson Street Santa Cruz	SCHSA	petroleum-based products sodium metascolate non-chlorinated solvents	



SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 4 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
II	Chuck Fanucci Auto Body	211 McPherson Street Santa Cruz	SCHSA	thinner paint primer	
	Ken's Stripping and Auto Body	217 McPherson Street Santa Cruz	SCHSA	paint waste paint paint thinner	
	Tobey's Rasp	2203 Mission Street Santa Cruz	SCHSA		Confidential file.
	Dive Laboratories	2501 Mission Street Santa Cruz	SCHSA		No file.
	R.V. Service Center of Santa Cruz	2525 Mission Street Santa Cruz	SCHSA	paints and thinners safety kleen waste oil	
	Woodworking, Cabinets, and Glass Works	2593 Mission Street Santa Cruz	SCHSA		No file.
	Pfyffer Associates	2611 Mission Street Santa Cruz	SCHSA	waste oil Freon acetylene petroleum-based product	UST removed 1987.
	Wm. Wrigley Jr. Company	2801 Mission Street Santa Cruz	SCHSA	paint thinner fuel oil waste paint thinner	(1) 10,000-gallon diesel UST removed 12 August 1991.
	Facility Name Not Available	2931 Mission Street Santa Cruz	SCHSA		No file.



SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 5 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
II	Raytek, Inc.	1201 Schaffer Road Santa Cruz	SCHSA	acetone liquid ammonia neutralizer petroleum-based products	R&D manufacturing, repair, and maintenance.
	Granite Construction Company	1280 Schaffer Road Santa Cruz	SCHSA	diesel gasoline motor oil used oil solvents battery acid	(2) 10,000-gallon USTs
	Harmony Talisman	719 Swift Street Santa Cruz	SCHSA		No file.
	Aliberti Constructions	820 Swift Street Santa Cruz	SCHSA		No file.
	Riley Collins Auto Body	113 Watson Street Santa Cruz	SCHSA	paint lacquer thinner solvent	
III	Marine Engine	565 6th Avenue Santa Cruz	SCHSA	petroleum-based products antifreeze parts cleaner spray paint	



SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

Santa Cruz and Monterey Counties, California

Page 6 of 12

Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
III	PG&E Santa Cruz Service Center	615 7th Avenue Santa Cruz	SCHSA	unleaded gasoline diesel fuel petroleum-based products chlorinated solvents spray paint waste antifreeze waste oil waste PCB liquids waste mercury high-density vapor lamps	(1) 10,000-gallon unleaded UST (1) 5000-gallon diesel UST (1) 520-gallon waste oil UST
	Anthony's Auto Dismantling	980 17th Avenue Santa Cruz	SCHSA	waste oil	
	F1 Auto Restoration	980 17th Avenue, F-1 Santa Cruz	SCHSA	petroleum-based product waste oil	HMMP plan is incomplete.
	Flyworks/City Auto Body	980 17th Avenue, E-1 Santa Cruz	SCHSA	petroleum-based product waste paint thinner	
	Guluarte Afinaciones	980 17th Avenue, C-5 Santa Cruz	SCHSA	petroleum-based product solvent	
	Independent Fiat Repair	980 17th Avenue Santa Cruz	SCHSA	used oil petroleum-based product antifreeze	
	Specialized Auto Parts	980 17th Avenue, C-7 Santa Cruz	SCHSA	oil solvent	Soil removal and sampling performed in 1987; no further files.
	Thomas Automotive Dismantling	980 17th Avenue, D-1 Santa Cruz	SCHSA	waste oil used batteries oxygen	Public complaint of chemicals discharge to Schwann Lake via storm drain system.
	Ted Anderson	980 17th Avenue Santa Cruz	SCHSA	waste oil	



SUMMARY OF CHEMICAL USAGE AT FACILITIES ADJACENT TO DAVENPORT AND SANTA CRUZ BRANCH LINES¹

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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
III	Ledyard Company	1005 17th Avenue Santa Cruz	SCHSA	caustics acids ethyl alcohol ethanol ammonia	Two USTs removed 17 January 1992.
	Spencer's Imported Car Service	1010 17th Avenue Santa Cruz	SCHSA	waste oil coolant	
	Waterat Sailing Equipment	1041-C 17th Avenue Santa Cruz	SCHSA	resins acetone methyl ethyl ketone methyl ethyl ketone peroxide paint	Boat builder.
	Falcon Trading Company, Inc.	1055 17th Avenue Santa Cruz	SCHSA	waste oil waste antifreeze waste solvent	Truck repair work. Anonymous complaint about used oil dumping; no follow-up documented in file.
	Moulton's Union Service #5876	201 Searidge Road Aptos	SCHSA	regular and super unleaded gasoline petroleum-based products lead and acid batteries	(2) 12,000-gallon USTs (1) 550-gallon UST Three USTs removed in 1988.
	Aptos Village Garage	8028 Soquel Drive Aptos	SCHSA	gasoline diesel	(3) 4000-gallon unleaded USTs (1) 4000-gallon diesel UST
	San Lorenzo Lumber Door Shop	1230 Thompson Avenue Santa Cruz	SCHSA	motor oil waste oil hydraulic oil motor fuel	(1) 500-gallon UST removed in 1992.



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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
IV	Buena Vista Landfill Household Hazardous Waste Collection Facility	1231 Buena Vista Drive Watsonville	SCHSA	paint solvents pesticides herbicides antifreeze lead acid batteries waste oil Freon asbestos	
	Pajaro Valley Unified School District	11 Spring Valley Road La Selva Beach	SCHSA	liquid cleaning agents	
	Moreno Petroleum Company	33 Associated Lane Watsonville	MDH	kerosene diesel unleaded gasoline	
	California Spray and Chemical Company, #2 and #2	220 First Street Watsonville	WFD	solvents cleaners spray cement	According to WFD representative, site address is 125 Walker Street and is currently Dixon & Son Tire, Inc.
	Cabrillo Tile	51 Fremont Avenue Watsonville	MDH		No file.
	Cambridge Sportsturf Drainage	235 Kearny Street Watsonville	WFD	none listed	Half-full drum of used oil; complaint to SCHSA.
	Martinelli Cider Warehouse	249 Kearny Street Watsonville	WFD	none listed	
	Martinelli's Warehouse	257 Kearny Street Watsonville	WFD	none listed	
	Watsonville Berry Cooler	416 Salinas Road Watsonville	MDH	kerosene fuel oil carbon dioxide	On 9 June 1990, ammonia vapor release was reported.



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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
IV	C&N Tractors	496 Salinas Road Watsonville	MCHD	petroleum-based product diesel fuel waste oil cleaning solvents and thinners regular gasoline	
	Santa Cruz KOA	1186 San Andreas Road Watsonville	SCHSA		 (1) 10,000-gallon regular unleaded UST (1) 10,000-gallon leaded UST (1) vadose monitoring well installed
	PG&E Service Center Watsonville	11 Walker Street Watsonville	SCHSA	PCBs waste oil wastewater containing waste oil diesel unleaded gasoline 1,1,1-trichloroethane	(1) 2000-gallon diesel AST (1) 2000-gallon unleaded gasoline UST
	Moreno Roofing	16 Walker Street Watsonville	WFD	none listed	
	Western Roofing Supply, Inc.	32 Walker Street Watsonville	WFD	none listed	UST removed without following proper procedure. Soil samples taken around the tank. TPHg detected at 170 ppm; xylenes and benzene at 10 ppm.
	Bulaich Machinery and Salvage	39 Walker Street Watsonville	WFD	flammable liquid	(1) flammable liquid UST
	American Foods/Indian Summer	46 Walker Street Watsonville	WFD	specially denatured ethyl alcohol caustics Freon-22 propane waste oil	USTs located at facility.



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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
IV	Miller's Mayflower Transfer and Storage	114 Walker Street Watsonville	WFD	none listed	
	Scott's Valley Sprinkler and Pipe	131 Walker Street Watsonville	WFD	none listed	
	FMC Corporation, Niagra Chemical, Division #1	149 Walker Street Watsonville	WFD	kerosene motor oil transmission fluid hydraulic oil cleaning solvents anti-freeze	Chemical usage and storage information for current site occupant, K-Lift Service.
	Kadotani Auto Repair	200 Walker Street Watsonville	WFD	petroleum-based products waste oil	
	Ken's Auto Parts	202 Walker Street Watsonville	WFD	none listed	
	Arctic Cold Storage LLC	241 Walker Street Watsonville	WFD	glycol anhydrous ammonia alkaline detergents solvent petroleum-based products microbicide	
	Facility Name Not Available	314 West Beach Street Watsonville	WFD	no listing of materials used	Multiple businesses; four photographs of a cut-up storage tank but no other mention of tank removal. A permit fee paid to WFD on 28 April 1988.
	Restar Farming	480 West Beach Street Watsonville	WFD	caustics petroleum-based products anhydrous ammonia acids	 (1) 550-gallon gasoline UST (1) 10,000-gallon gasoline UST removed February 1987 (2) 1000-gallon gasoline UST removed February 1987



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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
IV	Granite Rock Company, Watsonville Branch	540 West Beach Street Watsonville	WFD SCHSA	sodium hydroxide diesel oil no. 2 fuel oil no. 2 petroleum-based products acids	(2) USTs removed 29 November 1990; soil samples were non- detect (1) 10,000-gallon diesel UST installed 10 December 1990
	Apple Growers Ice and Cold Storage Company	850 West Beach Street Watsonville	WFD	anhydrous ammonia petroleum-based products WSCP algaecide cooling tower treatment waste compressor oil	UST removed 1987.
	Phillips Drisco Pipe, Inc.	880 West Beach Street Watsonville	WFD	potassium hydroxide ethylene glycol	
	Moreno Petroleum Company	1110 West Beach Street Watsonville	WFD	none listed	(2) 10,000-gallon diesel ASTs removed 12 June 1989 16,000-gallon compartmentalized UST installed on 22 March 1996.
	A. L. Lease Company	1220 West Beach Street Watsonville	WFD	none listed	Leaking USTs removed in 1989. Case closed by RWQCB.
	Waste Management of Santa Cruz	1340 West Beach Street Watsonville	WF SCHSA	petroleum-based products batteries paint citrus-based solvent	
	Big Creek Lumber and Building Supplies	1400 West Beach Street Watsonville	WF	diesel fuel gasoline petroleum-based products waste oil	



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Section No.	Facility Name	Facility Address	Agency ²	Materials Used	Comments ²
IV	Del Mar Food Products Corporations	1720 West Beach Street Watsonville	SCHSA	solvents waste oil	During annual pretreatment inspection of the site in 1991, the following was noted: approximately 180-220 55-gallon drums, contents unknown; and several 35-gallon drums of muriatic acid.

Notes:

- 1. Facility name and address identified during site reconnaissance on 23 May 1996. These facilities are adjacent to the site and are listed based on their apparent business operations where the on-site use of chemicals is suspected.
- 2. Abbreviations:

SCHSA = County of Santa Cruz Department of Environmental Health

MDH = County of Monterey Department of Health, Division of Environmental Health

WFD = Watsonville Fire Department

RWQCB = California Regional Water Quality Control Board

UST = underground storage tank

AST= aboveground storage tank



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Section No.	Site I.D. ¹	Facility Name and Address	Source of Information/Year	Site Description	Constituents detected in soil and groundwater ²	Depth to groundwater (ft bgs)/Direction of groundwater flow	Location Relative to Site
I	NA	Oceanview Gas Station Highway 1 Davenport	SCHSA 1990 - 1994	Two gasoline USTs and one waste oil UST were removed in 1990. 55 to 70 cubic yards (cy) of soil were excavated from waste oil tank pit.	Soil TPHg TPHmo TOG 1,2-DCB 1,4-DCB	NA	north
	NA	RMC Lonestar Davenport Cement Plant Highway 1 Davenport	SCHSA 1992 - 1994	A former landfill is located adjacent to the plant, on RMC property. Waste was deposited into the landfill until the late 1980s. A pond formed on the upper portion of the landfill. RWQCB collected samples from nearby streambed. Soil samples contained potentially elevated metals. Five monitoring wells installed at the site.	Soil TRPH 1,1,1-TCA Toluene Groundwater TRPH Acetone	NA, southwest	north
	1275	Dumpsite 1 Area 451 Coast Road Santa Cruz	SCHSA 1994 - 1995	Notice of Violation issued in January 1994 for illegal dumping; cleanup of dump material required. California Integrated Waste Management Board certified clean closure of facility in February 1995.	NA	NA	north
	NA	Don Bargiacchi & Company 751 Coast Road Santa Cruz	SCHSA 1995	UST removed prior to 1984, currently an AST on site. No further information available.	NA	NA	north
	NA	Don Bargiacchi & Company 2101 Coast Road Santa Cruz	SCHSA 1995	UST removed prior to 1984, currently an AST on site. No further information available.	NA	NA	north
	1598	Lorenzi Ranch 5511 Coast Road Santa Cruz	SCHSA	File closed.	NA	NA	north
	3834	Granite Rock Company 1800 Coast Road Santa Cruz	SCHSA	Not an environmental case per SCHSA.	NA	NA	north
	NA	Davenport Burn Dump along Pacific Ocean next to RR Davenport	SCHSA	File not available due to insufficient address/location description.	NA	NA	NA
II	6169	Rudolph Property 2429 Mission Street Santa Cruz	SCHSA 1990 - 1996	Site has been a service station since the early 1950s. Four USTs removed in 1988; soil contamination noted during UST removal. 550 cy of affected soil were excavated. Six monitoring wells were installed at site. Free product has been observed in one well.	Soil TPHg BTEX Groundwater BTEX	8 to 13, south to southwest	north



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II	3994	Mission Industrial Lands 2541 Mission Street Santa Cruz	SCHSA 1988 - 1989	SCHSA responded to complaint that material was being disposed of along western property boundary adjacent to SPTCo right-of-way (paint, fiberglass, waste oil, batteries). In 1988, SCHSA requested that Mission Industrial Lands take some samples along the fence adjacent to the right-of-way. No further information available.	NA	NA	north
	1468	Thomas J. Lipton, Inc. 2200 Delaware Street Santa Cruz	SCHSA 1988 - 1995	Product line leak in 1988; soil excavated. USTs removed in 1988. Three wells installed in 1989. Groundwater sampling conducted since 1990.	Soil TPHd TEX Groundwater TPHd	6 - 7, south	south
	2020	Water Pollution Control Facility 110 California Street Santa Cruz	SCHSA 1994 - 1996	Site is proposed construction location for secondary clarifiers, etc., for waste water treatment plant. Investigation of old fill material at site conducted. RWQCB requested delineation of designated waste soil and mitigation based on soluble lead concentrations. Fill material contains road demolition debris, including asphalt. 14,400 cy of material disposed of off site in 1994.	TPHg Soil TPH Lead (total and soluble by WET)	NA	north
	6819	E.V. Moceo Company, Inc. 1206 Fair Avenue Santa Cruz	SCHSA 1989 - 1996	Three USTs removed in 1989. Six monitoring wells installed. Groundwater sampling conducted since 1994.	Groundwater TPHg BTEX MTBE 1,1,1-TCA	3.7 - 5.5, southwest to northwest	south
	272	Beacon Station No. 734 2202 Mission Street Santa Cruz	SCHSA 1996	Three USTs removed in 1991. Four vapor extraction wells installed; combustion engine installed in 1992. Nine groundwater monitoring wells have been installed. Groundwater sampling has been conducted since 1992. Product has historically been noted in several wells.	Groundwater TPHg BTEX	2 - 5.5, south to southeast	north
	3885	Custom Alloy Ezeflow 2119 Delaware Avenue Santa Cruz	SCHSA	File closed.	NA	NA	south
	9935	F&M Engineering Contractors, Inc. 140 Ingalls Street Santa Cruz	SCHSA	File closed.	NA	NA	south
	3839 4242	Granite Construction Company 1280 Shaffer Road Santa Cruz	SCHSA	Not an environmental case per the SCHSA.	NA	NA	south
	3917	Intel Corporation 2161 Delaware Avenue Santa Cruz	SCHSA	Closed facility, not an environmental case per the SCHSA.	NA	NA	south
	3846	Lawton & Company 2565 Mission Street Santa Cruz	SCHSA	File not available.	NA	NA	north



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II	3993	Native Images, Inc. 2539 Mission Street Santa Cruz	SCHSA	File not available.	NA	NA	north
	3930	Pfyffer Cooler 2611 Mission Street Santa Cruz	SCHSA	Information contained in file regarded chemical usage only (see Table 1). Not an environmental case per the SCHSA.	NA	NA	north
	3982	Santa Cruz Stripper 2575 Mission Street Santa Cruz	SCHSA	File closed.	NA	NA	north
	2986	Stoller Research Company, Inc. 1211 Fair Avenue Santa Cruz	SCHSA	File closed.	NA	NA	south
	2212	Wm. Wrigley Jr. Company 2801 Mission Street Santa Cruz	SCHSA	Information contained in file regarded chemical usage only (see Table 1). Not an environmental case per the SCHSA.	NA	NA	north
	7055	Elyxir Distributing 2521 Mission Street Santa Cruz	SCHSA	File pending.	Groundwater BTEX	NA	north
III	1312	Ledyard Corporation Distribution Facilty 1005 17th Avenue Santa Cruz	SCHSA 1992 - 1996	The site operates as a wholesale food and restaurant supplier. Two USTs were installed at the site in 1978. The USTs were removed in 1992. Ten monitoring wells were installed and sampled starting in1993. Free product observed in several wells; product removed for 1-week period in 1995. Soil vapor extraction testing conducted in 1995.	Soil TPHd TPHg BTEX Groundwater	17 - 22, southwest	north
					TPHg BTEX 1,2-DCA		
	3565	New Brighton State Beach 1500 Park Avenue Capitola	SCHSA 1991 - 1993	Tank testing in 1992 indicated a leaking system for a gasoline UST. SCHSA requested an Unauthorized Leak Report; no further information available.	NA	NA	south
	3320	Aptos Fire Department Station #1 7960 Soquel Drive Aptos	SCHSA	File closed.	NA	NA	north
	7117	Bob's Body Shop 5005 East Cliff Capitola	SCHSA	Not an environmental case per the SCHSA.	NA	NA	south
	393	Central Fire District Station 930 17th Avenue Santa Cruz	SCHSA	Not an environmental case per the SCHSA.	NA	NA	south



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III	9132	Ernestine R. Read 214 Shoreview Drive Aptos	SCHSA	File closed.	NA	NA	south
	5709	Renzel Property 214 Shoreview Drive Aptos	SCHSA	File closed.	NA	NA	south
	8006	Moulton Union Service 201 Sea Ridge Street Aptos	SCHSA	Information contained in file regarded chemical usage only (see Table 1).	NA	NA	north
	1568	Pacific Gas and Electric Company 615 7th Avenue Santa Cruz	SCHSA	Information contained in file regarded chemical usage only (see Table 1). File closed.	NA	NA	north
	1852	Palmer Glass Company 7996 Soquel Drive Aptos	SCHSA	Not an environmental case per the SCHSA.	NA	NA	north
	6722	Robert L. Laverty 4413 Nova Drive Santa Cruz	SCHSA	Not an environmental case per the SCHSA.	NA	NA	south
	8612	San Lorenzo Lumber Door Shop 1230 Thompson Avenue Santa Cruz	SCHSA	Information contained in file regarded chemical usage only (see Table 1). Not an environmental case per the SCHSA.	NA	NA	north
	3873	Santa Cruz Plastic Tops, Inc. 1037 17th Avenue Santa Cruz	SCHSA	See El Dorado Meat Company (#6989).	NA	NA	north
	4252	Terrible Herbst #76 8060 Soquel Drive Aptos	SCHSA	File closed.	NA	NA	south
	67	Village Garage 8028 Soquel Drive Aptos	SCHSA	Information contained in file regarded chemical usage only (see Table 1). Not an environmental case per the SCHSA.	NA	NA	north
	6989	El Dorado Meat Company 1037 17th Avenue Santa Cruz	SCHSA 1990 - 1994	Two gasoline USTs were removed in 1989. Five monitoring wells were installed. Three were destroyed later under RWQCB approval following monitoring. Quarterly groundwater monitoring is being conducted.	Soil TPHg BTE MTBE Groundwater BTEX	20, southwest	north
	3964	Anthony's Auto Dismantling 980 17th Avenue Santa Cruz	SCHSA	No environmental case on file per SCHSA.	NA NA	NA	south



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Section No.	Site I.D. ¹	Facility Name and Address	Source of Information/Year	Site Description	Constituents detected in soil and groundwater ²	Depth to groundwater (ft bgs)/Direction of groundwater flow	Location Relative to Site
IV	1481	Little Lake Industries 1340 W. Beach Street Watsonsville	SCHSA 1993 - 1996; WFD 1990 - 1996	Site was occupied by Harris Pine Mills from prior to 1978 to 1987. The operations included construction, staining, and finishing of patio furniture. Two USTs (thinner and mixing) were removed in 1990. Three monitoring wells were installed in 1991. Case closure was requested in 1994. Some samples collected from off site to assess migration in 1995. 1600 cy of affected soil bioremediated in 1995.	Soil Stoddard Solvent TPHmo TOG Groundwater Stoddard Solvent BTEX	4 - 5, south	south
	9080	Pillsbury Green Giant Facility 735 W. Beach Street Watsonville	SCHSA 1990; WFD 1988 - 1994	One UST removed in 1988. One monitoring well installed in 1988, and quarterly groundwater sampling initiated in 1989. Request for site closure denied in 1992 by RWQCB. Soil excavation conducted in 1994.	Soil TVH TPHwo BTEX Groundwater BTEX	NA	south
	2187	Western Farm Service, Inc. 405 W. Beach Street Watsonville	SCHSA 1985 - 1996; WFD 1987, 1994	Site is operated as a pesticide/fertilizer sales and application business. The site generates diluted waste water that is discharged to above-ground containers. Monitoring wells installed at site. In 1980, the RWQCB inspected site and reported improper disposal of fertilizer and pesticide residues with an unlined sump. Cleanup and abatement order issued in 1985. In 1989, RWQCB inspected site and reported improper disposal of brine water by landspreading. They reportedly stored petroleum products in three USTs, which have been removed. In 1994, a corrective action plan (CAP) was prepared for affected soil and groundwater at the site.	Soil TPHg BX Toxaphene DDT Spray Oil Groundwater TPHg BTEX DDT 1,2-dichloropropane Nitrate Nitrogen Endosulfan I and II PCB 1260	NA, south	north
	3232	C&N Tractors 496 Salinas Road Watsonville	MDH 1987 - 1989	One UST removed in 1987; approximately 100 cy of soil excavated and aerated. Additional UST removed in 1989. One monitoring well on site.	Soil TPHg BTEX Groundwater TPHg BTX	6, NA	northeast



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Section No.	Site I.D. ¹	Facility Name and Address	Source of Information/Year	Site Description	Constituents detected in soil and groundwater ²	Depth to groundwater (ft bgs)/Direction of groundwater flow	Location Relative to Site
IV	2024	Avelar Auto Shop 300 Salinas Road Watsonville	MDH 1993	Site applied for UST permits in 1993. No further information available.	NA	NA	east
	7849	Moreno Petroleum Company 33 Associated Lane Watsonville	MDH 1993 - 1995	Site operates as a petroleum distributor. Eight monitoring wells installed, three vapor extraction wells installed, and one sparging well installed. No further information available.	Groundwater TPHd B	3 - 5, NA	east
	4437	Pajaro Chevron 422 Salinas Road Watsonville	MDH 1988 - 1992	Site operates as a service station. Four USTs are located on site. No further information available.	NA	NA	east
	662	PG&E Service Center 11 Walker Street Watsonville	WFD 1986 - 1995	Site operates as a service center for PG&E. Two gasoline USTs were on site; tested tight in 1986. Soil sampling conducted in 1988. PG&E submitted tank closure plan in 1994. Additional soil sampling conducted in 1995 as part of tank closure. Dates of UST removal(s) unknown. Site currently has several ASTs.	Soil TPHd TPHg TOG BTEX Pyrene	NA	north
	3979	Unocal Bulk Plant 103 Lee Road Watsonville	WFD 1988 - 1995	Site operates (for more than 60 years) as a bulk petroleum distribution station. During site remodel in 1987, oil, diesel, and gasoline observed in soil. Approximately 200 cy of soil were excavated. Three monitoring wells installed.	Soil TPHd TPHmo TOG BTEX Groundwater TPH	2 - 6, NA	north
	2024				TOG BTEX		
	3924	Southwest Truck Service 50 Pine Street Watsonville	WFD 1990	Two USTs removed in 1990 (diesel and gasoline). Soil samples collected from tank excavations were non-detect.	Soil ND	NA	south
	8221	Former MidState Electric 220 Pine Street Watsonville	WFD 1995	One UST removed in 1995, minor leakage was noted.	Soil TPHg BTEX	NA	south
	3941	Cluster's Auto Wrecking 600 Errington Road Watsonville	WFD 1991 - 1992	Site inspection by City Public Works Department in 1991 noted evidence of oil spills or discharges; sulfuric acid storage without containment; and runoff from site that may be affected. A 1992 inspection noted two fuel tanks, automobile gas tanks, and solvent containers that potentially leaked.	NA	NA	north



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IV	553	Venture Oil/Ahlport Petroleum 950 West Beach Street Watsonville	WFD 1989 - 1994	Site contains several USTs and ASTs. USTs removed (date unknown). Soil and grab groundwater sampling conducted.	Soil TPHg BTEX Groundwater TPHd TPHg BTEX	4.5 - 5, south to west	south
	3863	Ametech Pacific/Ketema 1715 West Beach Street Watsonville	WFD 1993 - 1994	Tank test failure of diesel UST reported in 1993. UST removed in 1993.	Groundwater TPHd	4, NA	south
	6461	Berman Steel 627 Walker Street Watsonville	WFD 1982 - 1990	Site has several USTs. Soil and groundwater analytical data collected in 1981 and 1990; no further information available.	Soil TPHg TEX Paint Thinner PCBs Groundwater PCBs	NA	north
	3944	Coast Auto Supplies 112 Lee Road Watsonville	WFD 1988 - 1991	Two USTs removed in 1988. Soil analytical data collected in 1991. No further information available.	Soil Lead	NA	south
	4595	Paul's Trucking 144 West Lake Avenue Watsonville	WFD 1989 - 1995	Diesel UST failed tank test in 1989. Four USTs were removed in 1989. Affected soil was excavated in 1989.	Soil TPHd BTEX	NA	north
	3874	Phillips Products Company, Inc. 880 West Beach Street Watsonville	WFD 1987	One UST removed in 1986. One monitoring well was installed in 1987. The groundwater sample from the well in 1987 was non-detect for TPHg and BTX.	Soil TPHg BTX	6.5, NA	south



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Section No.	Site I.D. ¹	Facility Name and Address	Source of Information/Year	Site Description	Constituents detected in soil and groundwater ²	Depth to groundwater (ft bgs)/Direction of groundwater flow	Location Relative to Site
IV	3978	Chevron Facility 101 Lee Road Watsonville	WFD 1989 - 1996	Petroleum products have been stored at the site since approximately 1920. There are USTs and ASTs on site. Several ASTs were removed in the late 1980s. Seven on-site monitoring wells are sampled.	Soil TPHd TPHg BTEX MTBE Acetone MEK Groundwater TPHd TPHg BTEX MTBE	0.5 - 4.5, north to northwest	south
	3943	Bulaich Machinery & Salvage 39 Walker Street Watsonville	SCHSA, WFD	No information on file at SCHSA. Information on file at WFD included chemical storage and UST permit only (see Table 1).	NA	NA	south
	3854, 3855	California Spray & Chemical Co. #2 and #3 220 1st Street Watsonville	SCHSA, WFD	No information on file at SCHSA. According to WFD representative, site address is 125 Walker Street and is currently Dixon and Son Tire, Inc. WFD file included chemical usage info only (see Table 1).	NA	NA	north
	3857	California Spray & Chemical Co. #4 198 West Lake Avenue Watsonville	SCHSA, WFD	No information on file at SCHSA. Information on file at WFD included permit for UST only.	NA	NA	north
	3997	Electric Motor Service Company 105 Lee Road Watsonville	SCHSA	File closed.	NA	NA	south
	3861	FMC Corporation, Niagra Chemical Division #2 202 Walker Street Watsonville	SCHSA, WFD	No information on file at SCHSA or WFD.	NA	NA	north
	3868	FMC Corporation, Niagra Chemical Division #1 149 Walker Street Watsonville	SCHSA, WFD	No information on file at SCHSA. Information on file at WFD included chemical usage and storage on current occupant, K-Lift Service (see Table 1).	NA	NA	south
	3967	General Petroleum Corporation #2 500 Salinas Road Watsonville	SCHSA, MDH	No information on file at MDH.	NA	NA	south



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IV	3959	Portola Auto Wreckers 520 Errington Road Watsonville	SCHSA, WFD	No information on file at SCHSA. Information on file at WFD included chemical storage.	NA	NA	north
	3968	Richfield Oil Company #2 501 Salinas Road Watsonville	MDH	No information on file at MDH.	NA	NA	south
	3971	Seaside Oil Company 110 San Juan Road Watsonville	MDH	Information on file at MDH included only a health permit for the current occupant, P&H Electric Motor Works.	NA	NA	northeast
	3843	Travers Cold Storage 890 West Beach Watsonville	SCHSA	Letter in file dated 6/19/97 from RWQCB indicated that additional groundwater characterization was required at the site. No other information available in the file.	NA	NA	south
	240	J.M. Smucker 423 Salinas Road Watsonville	RWQCB 1994	Portion of property formerly occupied by a gasoline station. Five USTs were removed in May 1994. Following UST removal, additional characterization was performed to evaluate the extent of soil containing petroleum hydrocarbons and the potential impact to groundwater. Results indicated that affected soil was present to a maximum depth of 10 feet below grade and groundwater is impacted.	Soil TPHg TPHd B T E X Groundwater TPHg B T E X	southwest	east
	8860	Santa Cruz KOA 1186 San Andreas Road Watsonville	SCHSA	Information contained in file regarded chemical usage only (see Table 1). Not an environmental case per the SCHSA.	NA	NA	north
	NA	Shell Oil Company #2 401 Ford Street Watsonville	WFD 1964 - 1995	Bulk storage facility with at least five ASTs for diesel and gasoline, and two USTs for gasoline. Site also contained drum storage area inside a building. In October 1995, the RWQCB requested a site assessment work plan. Shell responded to the RWQCB that other parties must be responsible. No further information is available.	NA	NA	north
	NA	Al Bertrand Property 74-F Zils Road Watsonville	MDH	No information on file at MDH.	NA	NA	NA



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Notes:

Number assigned to the site by the commercial database firm, ERIIS, of Herndon, Virginia.

TPHd	total petroleum hydrocarbons as diesel	1,4-DCB	1,4-dichlorobenzene
TPHg	total petroleum hydrocarbons as gasoline	1,1-DCE	1,1-dichloroethene
TPHmo	total petroleum hydrocarbons as motor oil	1,1,1-TCA	1,1,1-trichloroethane
TPHwo	total petroleum hydrocarbons as waste oil	cis-1,2-DCE	cis-1,2-dichloroethene
TRPH	total recoverable petroleum hydrocarbons	MTBE	methyl-tert butyl ether
TOG	total oil and grease	MEK	methyl ethyl ketone
В	benzene		

Other Abbreviations: toluene ethylbenzene AST aboveground storage tank UST underground storage tank xylenes not available TVH total volatile hydrocarbons NA

DCA dichloroethane dichlorobenzene MDH Monterey Department of Health DCE Regional Water Quality Control Board Santa Cruz Health Services Agency PCE tetrachloroethene RWQCB TCAtrichloroethane SCHSA TCE trichloroethene SPTCo Southern Pacific Transportation Company Watsonville Fire Department **PCBs**

polychlorinated biphenols WFD dichlorobenzene

PCDs 1,2-DCB 1,2-dichlorobenze











